What Is Claimed Is:

1. A cesium vapor emitter, comprising:

a housing having at least one chamber therein and at least one channel, wherein the channel has a size wide enough to introduce a desired amount of cesium vapor;

a cesium reservoir placed in the chamber, wherein the cesium reservoir is filled with a cesium pellet and a plug located between the cesium pellet and the channel, thereby emitting the cesium vapor from the cesium pellet through the channel; and

a stopper securing the cesium reservoir in the chamber, so that the cesium vapor is emitted through the channel.

2. The cesium vapor emitter according to claim 1, wherein the cesium pellet includes cesium slurry.

3. The cesium vapor emitter according to claim 1, wherein the plug is formed of a cesium pellet.

4. The cesium vapor emitter according to claim 3, wherein the cesium pellet includes a sintered cesium-mordenite.

5. The cesium vapor emitter according to claim 4, wherein the sintered cesium-mordernite has a composition of $Cs_2O \cdot Al_2O_3 \cdot 10SiO_2$.

6. The cesium vapor emitter according to claim 1, wherein the cesium pellet is a mixture of cesium-mordenite powder 50%-liquid cesium 50% by weight.

7. The cesium vapor emitter according to claim 1, wherein the housing has a shape of one of annular ring, rectangular, and dual strip types.

8. The cesium vapor emitter according to claim 1, wherein the cesium reservoir is heated up to a range of about 150 to 200°C.

9. The cesium vapor emitter according to claim 1, further comprising an insert gas supplier in close proximity to the cesium reservoir for supplying an inert gas with the cesium vapor.

10. A negative ion sputter source, comprising:

an electrode receiving an electrical potential;

a sputter target electrically coupled to the electrode, having a negative electrical potential higher than the electrode, and providing a plurality of source ions; and

a cesium vapor emitter located close enough to provide a plurality of cesium vapor onto a reacting surface of the sputter target, wherein the cesium vapor emitter includes a housing having at least one chamber therein and at least one channel, wherein the channel has a size wide enough to introduce a desired amount of the cesium vapor and is located in close proximity to the sputter target and a cesium reservoir placed in the chamber, wherein the cesium reservoir is filled with a cesium pellet and a plug located between the cesium pellet and the channel, and a stopper securing the cesium reservoir in the chamber, so that the cesium vapor is emitted through the channel.

11. The cesium vapor emitter according to claim 10, wherein the plug is formed of a cesium pellet.

12. The cesium ion source according to claim 11, wherein the cesium pellet includes a cesium slurry.

13. The cesium vapor emitter according to claim 11, wherein the cesium pellet includes a sintered cesium-mordenite.

14. The cesium vapor emitter according to claim 13, wherein the sintered cesium-mordernite has a composition of $Cs_2O \cdot Al_2O_3 \cdot 10SiO_2$.

15. The cesium vapor emitter according to claim 10, wherein the cesium pellet is a mixture of cesium-mordenite powder 50%-liquid cesium 50% by weight.

16. The cesium vapor emitter according to claim 10, wherein the housing has a shape of one of annular ring, rectangular, and dual strip types.

17. The cesium vapor emitter according to claim 10, wherein the cesium reservoir is heated up to a range of about 150 to 250°C.

18. The cesium vapor emitter according to claim 10, further comprising an insert gas supplier in close proximity to the cesium reservoir for supplying an inert gas with the cesium vapor.

19. A method of fabricating a cesium vapor emitter, comprising:

preparing a stabilized cesium pellet;

introducing the cesium pellet into a cesium reservoir; and

sealing the cesium reservoir with a cesium pellet plug by using vacuum pressing.

20. The method according to claim 19, wherein the preparing a stabilized cesium pellet includes:

mixing sodium-mordenite and cesium-chloride;

heating the mixed sodium-mordenite and cesium-chloride;

filtering the heated mixture through a vacuum frit;

drying a residual powder in a hot vacuum oven;

heating the dried powder high enough to stabilize a cesium-modernite powder; and

mixing the cesium-modernite powder with liquid cesium under an anti-oxidant environment to obtain the cesium slurry.

21. The method according to claim 20, wherein the mixed sodium-mordenite and cesium-chloride are heated at about 80°C.

22. The method according to claim 20, wherein the dried powder is heated at least at about 1050°C.

23. The method according to claim 20, wherein the cesium-modernite power and the liquid cesium is mixed with the same amount by weight.

24 25. The method according to claim 19, wherein the cesium pellet plug includes a cesium pellet.

25 26. The method according to claim 25, wherein the cesium pellet includes a sintered cesium-mordenite.

26 27. The method according to claim 26, wherein the sintered cesium-mordernite has a composition of $Cs_2O \cdot Al_2O_3 \cdot 10SiO_2$.

27 28. A method of fabricating a stabilized cesium pellet, comprising:

mixing sodium-mordenite and cesium-chloride;

heating the mixed sodium-mordenite and cesium-chloride;

filtering the heated mixture through a vacuum frit;

drying a residual powder in a hot vacuum oven;

heating the dried powder high enough to stabilize a cesium-modernite powder;

mixing the cesium-modernite powder with liquid cesium under an anti-oxidant environment to form a mixture; and

sintering the mixture of cesium-modernite powder and liquid cesium.

29. The method according to claim 28, wherein the mixed sodium-mordenite and cesium-chloride are heated at about 80°C.

30. The method according to claim 28, wherein the dried powder is heated at least at about 1050°C.

31. The method according to claim 28, wherein the cesium-modernite power and the liquid cesium is mixed with the same amount by weight.

32. A cesium slurry, comprising:

a first amount of cesium-mordenite powder; and

a second amount of liquid cesium,

wherein the first amount and the second amount are equal by weight.

33. The cesium slurry according to claim 32, wherein the cesium-mordenite has a composition of $Cs_2O \cdot Al_2O_3 \cdot 10SiO_2$.

34. The cesium slurry according to claim 32, wherein the cesium-mordenite is sintered.